

REMARKS

Claims 22-36 were examined. Claims 28-36 are allowed, and claims 22-27 are rejected. Claims 1-21 have previously been canceled, claims 49-70 were previously renumbered as claims 22-43, and claims 37-43 have previously been withdrawn from consideration. Applicants respectfully request reconsideration of claims 22-27 in view of the following remarks.

I Double Patenting Rejection

The Patent Office rejects claims 22-27 under the judicially created doctrine of obviousness type double patenting as being patentable over claims 1-5 of U.S. Patent No. 6,205,244. In response, Applicants file the attached Terminal Disclaimer for U.S. Patent No. 6,205,244, filed 3/20/2001 and respectfully request the Patent Office withdraw the rejection above.

II. Claims Rejected Under 35 U.S.C. § 103

The Patent Office rejects claims 22-27 under 35 U.S.C. § 103(a) as being unpatentable over U.S. 5,982,957 to DeCaro, et al. ("DeCaro") in view of Patent No. 6,351,308 to Mestha ("Mestha"). To render a claim obvious, all limitations of that claim must be taught or suggested by at least one properly combined reference.

Applicants respectfully disagree with the rejection of claim 22, for at least the reason that the cited references do not teach or suggest producing a first set of responses from a spectrophotometer based on the plurality of light radiating sources, and producing a second set of responses from an imager by exposing the imager to the plurality of light radiating sources, and determining calibrating coefficients from the first and second set of responses, as required by claim 22. According to claim 22, for example, a convenient method is provided of verifying that a calibration instrument used to determine calibrating coefficients of an imager device, is accurate, by directly measuring the light radiating sources with the spectrophotometer, such as by illuminating the spectrophotometer with the light

radiating sources or directly measuring the light radiating sources with the spectrophotometer (see page 18, lines 6-21 of the specification, as originally filed).

DeCaro teaches a method of re-exposing sensor 140 to sets of light emitting diodes (LEDs) and varying the time or power used to emit light from those diodes until a desired sensor response is obtained to allow mathematical calibration of a scanner (see col. 3, paragraph 3, lines 49-59; and col. 11, lines 10-45). Hence, DeCaro does not explicitly mention (as noted by the Patent Office) or suggest using a spectrophotometer to create responses. In addition, the Patent Office has not identified and Applicants are unable to find any teaching or suggestion in DeCaro of a set of responses from exposing an imager device to a plurality of light radiating sources, as well as another set of responses from a spectrophotometer (or any other additional imaging device) based on the plurality of light radiating sources to produce two sets of responses to determine calibrating coefficients from, as required by claim 22.

Mestha teaches spectrophotometer 12 sensing colors being printed from a target and having 10 circularly mounted light emitting diodes (LED's), D1 through D10, to output uniformly onto a target area that spectrophotometer 12 is sensing colors from (see paragraph 12, lines 40 through 45; paragraph 13, lines 3-10; Figures 1, 2, 5 and 6). In addition, Mestha teaches that spectrophotometer 12 may sense the color of color test patch 31 (see, col. 13, lines 10-13) and calibration plaque 47 (see col. 18, lines 27-34). However, in each instance, Mestha teaches that the colors being printed, color test patch 31, and plaque 47 are mounted on the opposite side of path 40 from spectrophotometer 12 (see Figures 1, 2, 5 and 6; and col. 18, lines 27-34). Hence, the Patent Office does not identify and Applicants are unable to find any teaching or suggestion in Mestha of producing a first set of responses from a spectrophotometer based on a plurality of light radiating sources, as required by claim 22. Specifically, Mestha teaches exposing a target to the light radiating sources, and using spectrophotometer 12 to sense the colors of the target. In addition, the Patent Office has not identified and Applicants are unable to find any teaching or suggestion in Mestha of a set of responses from exposing an imager device to a

plurality of light radiating sources, as well as another set of responses from a spectrophotometer (or any other additional imaging device) based on the plurality of light radiating sources to produce two sets of responses to determine calibrating coefficients from, as required by claim 22.

Hence, for at least the reason that neither the DeCaro, Mestha, nor the combination teach or suggest producing a first set of responses from a spectrophotometer based on a plurality of light radiating sources, producing a second set of responses from an imager by exposing the imager to the plurality of light radiating sources, and determining calibrating coefficients from the first and second set of responses, as required by claim 22, Applicants respectfully request the Patent Office withdraw the rejection above of claim 22.

Applicants assert that claims 23-27 being dependent upon allowable base claim 22, are allowable for at least the reasons explained above. Hence, Applicants respectfully request the Patent Office withdraw the above rejection of claims 22-27.

Moreover, in addition to the reason above, Applicants assert that claim 24 is allowable over the cited references as claim 24 requires peak wavelengths of 430 nm, 470 nm, 545 nm, 590 nm, and 660 nm. These peak wavelengths correspond to wavelengths of LED's that may be powered simultaneously according to sets of waiting factors to give the same color characteristics as the known industry standard, MacBeth Colorchecker® target available from MacBeth, Collmorgen Instrument Corporation in New Windsor, New York (see page 3, lines 1-6; page 10, lines 6-11; and page 15, line 24 through page 16, line 4 of the specification, as originally filed). Thus, the peak wavelengths provide a particular advantage of being able to generate MacBeth Colorchecker® colors for which there are known behaviors, studies, data, articles, hardware, software, and other devices and methods developed therefor in the industry. Moreover, the MacBeth Colorchecker® colors are accepted in the industry as standard calibration colors (see page 11, lines 15-22 of the application as originally filed). For example, it has been determined and is known in the industry that those wavelengths provide sufficient colors for calibrating color devices (Id.)

Moreover, those peak wavelengths provide a particular advantage of being wavelengths of LED's that are commercially available while also providing strong correlation with the color coefficients of the MacBeth Colorchecker® target (see page 10, lines 8 through page 11, line 5 of the application as originally filed). Hence, for at least these additional reasons, Applicants respectfully request the Patent Office withdraw the rejection above of dependent claim 24.

Moreover, in addition to the reason above, Applicants respectfully disagree with the rejection of claim 26, for at least the reason that the cited references do not teach or suggest producing a first set of responses from a spectrophotometer based on a plurality of light radiating sources by exposing the spectrophotometer to a plurality of light radiating sources, and producing a second set of responses from an imager by exposing the imager to the plurality of light radiating sources, and determining calibrating coefficients from the first and second set of responses, as required by claim 26.

As noted above DeCaro teaches a method of re-exposing sensor 140 to sets of light emitting diodes (LEDs) but does not explicitly mention or suggest exposing a spectrophotometer (or any other additional imaging device) to create responses, as required by claim 26.

Also, as previously noted Mestha teaches a spectrophotometer sensing colors from a printed target, a color test patch, and calibration plaque. However, in each instance, Mestha teaches that the colors being printed, color test patch 31, and plaque 47 are mounted on the opposite side of path 40 from spectrophotometer 12 (see Figures 1, 2, 5 and 6; and col. 18, lines 27-34). Hence, the Patent Office does not identify and Applicants are unable to find any teaching or suggestion in Mestha of producing a set of responses from a spectrophotometer by exposing the spectrophotometer to a plurality of light radiating sources, as required by claim 26. In addition, the Patent Office has not identified and Applicants are unable to find any teaching or suggestion in Mestha of exposing an imager device to a plurality of light radiating sources, as well as exposing a spectrophotometer (or any other

additional imaging device) to the plurality of light radiating sources produced two sets of responses to determine calibrating coefficients from, as required by claim 26.

Consequently, neither the DeCaro, Mestha, nor the combination teach or suggest producing a first set of responses from a spectrophotometer by exposing the spectrophotometer to a plurality of light radiating sources, producing a second set of responses from an imager by exposing the imager to the plurality of light radiating sources, and determining calibrating coefficients from the first and second set of responses, as required by claim 26. Hence, for at least this additional reason, Applicants respectfully request the Patent Office withdraw the rejection above of claim 26.

III. Allowable Subject Matter

Applicants note with appreciation that the Patent Office has found claims 28-36 allowable.

CONCLUSION

In view of the foregoing, it is believed that all claims now pending (1) are in proper form, (2) are neither obvious nor anticipated by the relied upon art of record, and (3) are in condition for allowance. A Notice of Allowance is earnestly solicited at the earliest possible date. If the Examiner believes that a telephone conference would be useful in moving the application forward to allowance, the Examiner is encouraged to contact the undersigned at (310) 207-3800.

If necessary, the Commissioner is hereby authorized in this, concurrent and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2666 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17, particularly, extension of time fees.

Respectfully submitted,

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CERTIFICATE OF TRANSMISSION:

I hereby certify that this paper is being facsimile transmitted to the U.S. Patent and Trademark Office on July 18, 2005.

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